

In the Claims

1. (Currently Amended) A method for designing filters that approximates the circularly symmetric frequency response achievable using a non-separable filter comprising:

(a) selecting a cut-off frequency and designing therefrom a 1-D one-dimensional separable low pass filter (LP), LP being a row vector having entries LP such that: $LP = [X_{-n}, X_{-(n-1)}, \dots, X_0, \dots, X_{n-1}, X_n]$;

(b) obtaining a 2-D two-dimensional filter LPP by performing the operation: $LP^* \times LP_x$ wherein LP^* is being a column vector having the same entries as LP_x and LPP having dimensions given by: $\{2n+1, 2n+1\}_i$;

(c) and-generating a 2-D two-dimensional countour contour plot for the two-dimensional filter LPP therefor;

(d)(e) designing a 1-D one-dimensional separable high pass filter (HP), HP being a row vector having entries such that: $HP = [Y_{-m}, Y_{-(m-1)}, \dots, Y_0, \dots, Y_{m-1}, Y_m]$;

(e)(d) obtaining a 2-D two-dimensional filter HPP by performing the operation: $HP^* \times HP_x$ wherein HP^* is being a column vector having the same entries as HP_x and HPP having dimensions: $\{2m+1, 2m+1\}_i$;

(f) and-obtaining-generating a 2-D two-dimensional contour plot for the two-dimensional filter HPP therefor; (e) repeating (e) through (d) until the 2-D contour plot of HPP overlaps the 2-D countour plot of LPP;

(g)(f) generating a 2-D two-dimensional filter (ONE) when the two-dimensional contour plot for the two-dimensional separable filter LPP overlaps the two-dimensional contour plot for the two-dimensional separable filter HPP, ONE having the same dimensions of that of HPP with the only non-zero entry of value 1 being located at the center of ONE;

(h)(g) creating matrix HPPinv by subtracting HPP from ONE to create matrix HPPinv;

(h)(g) convolving LPP with HPPinv to obtain DSCRN having dimensions: $\{2m+2n+1, 2m+2n+1\}_i$;

~~(i) and obtaining-generating a 2-D-two-dimensional contour plot for DSCRN~~
therefor; and

~~(j)(i) constructing a filter to eliminate moiré in a rendered image when-repeating
(a) through (h) until, by-an examination-of the 2-D-two-dimensional contour plot-of for
DSCRN; is an approximation to a desired circular symmetry-is-achieved, the filter being
constructed of LLP and HHP.~~

Claims 2-6 (Cancelled)